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ABSTRACT

This paper describes a study of the development of professional identity among employees in small and medium sized enterprises (SMEs) participating in large-scale company-wide training programs. Managers and employees in 175 SMEs in Finland participated. These two research questions were posed: (1) are there differences in the perceptions of professional identity between age groups, men and women, managers and other employee groups, staff with different educational backgrounds, and staff from different industries/businesses; and (2) what is the development of perceived professional identity measured before and after the training? Professional identity was measured using a 30-item self-report questionnaire. Attrition during the program was described as a significant problem. Data were gathered at the beginning of the training program and a follow-up was completed at the end of the program (five years). Among the findings were the following: (1) weaker professional growth motivation was associated with older age groups, blue-collar workers, and lower educational levels; (2) professional competence was highest among older workers and workers with more education; (3) younger age groups have greater professional growth motivation; and (4) women experience less professional frustration than men and were more committed to their work. The training program decreased professional frustration and increased perceived professional competence significantly. (Contains 33 references.) (SLR)

Development of Professional Identity in SMEs

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Abstract

The paper describes a study on the development of professional identity among employees in small and medium sized enterprises (SMEs) participating in large-scale company-wide training programs. Professional identity as a construct of different selves (self as self-directed active human being, self as a skilled professional, and self as a member of the working community) forms the theoretical model of the study.

Data were collected over a period of five years between 1996 and 2000. Of the 175 SMEs that participated in the large scale training program 122 participated in the research project. Employee sample size was 4,286. During this period some attrition of companies and employees has occurred. Validity and reliability is discussed critically. Data analyses include factor analysis, analysis of variance and t-tests.

It is argued that the development of professional identity is influenced by professional growth motivation, experience of competence, commitment to organization, and experiences of professional frustration. The individual moves along a professional identity continuum, influenced by both contextual factors and personal characteristics. The study contributes knowledge on the impact of an extensive training program on the development of professional identity as an essential feature of human resources.

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1 Background

The paper discusses the development of professional identity among employees in small and medium sized enterprises (SMEs) after participation in an extensive training program. During the five-year period between 1996-2000 a training program was conducted in 175 SMEs. The training program was funded by the European Social Fund and the Finnish Ministry of Labor. The program coordinator is a major provider of professional training in the world of enterprise in the southern region of Finland. The program coordinator maintains a leading position among numerous professional training centers in that region, where the competition for clients and financing is stiff. Staff includes 350 trainers and administrators.

The training program was designed to address the specific needs of SMEs providing means for the companies to maintain competitiveness through training. Many of the participating companies were more or less in a state of organizational restructuring and some threatened by redundancy due to changes in infrastructure and developments in production technology. To be eligible to participate in the training program, companies had to meet at least one of the following criteria: large reductions in annual profit, large percentage of employees threatened by lay-offs, low level of education among employees, high average age of employees, or need to patch up employees' technical and other skills.

The aim of the training program was to enhance client-centeredness, internal entrepreneurship, quality, productivity, international communication, marketing, and team building, and to improve production technology and product development. The training included technical professional and IT training, team building and management training. The specific content areas were determined through needs analysis in which the development needs of the entire personnel were mapped out, and the training was tailored to meet the specific needs of each company. The needs analyses were conducted by administrative staff in the training institution working together with the CEOs and possibly the human resources managers of the companies, if such existed. The training could be of any depth from updating skills to degree-oriented vocational training. For the companies the training program generally lasted one year.

To find out how a large-scale training program impacts employees, a research project was carried through in connection to the program. The objective of the research project was to investigate the development of employees' professional identity during the training program. The results of the research project are presented in the paper.

2 Theoretical Model of Professional Identity

A body of research has emerged focusing on the professional identities of nurses (e.g. Ohlen & Segesten 1998; Stronach, et al. 2002), retail workers (Puurula 1996), and teachers/education experts (Curle 1969; Haughey, Howard & Marshall 1996; Sachs 2001; Stronach, et al. 2002). Researchers have created role typologies (Curle 1969; Ohlen & Segesten 1998), identified styles of working (Haughey & al. 1996), and analyzed policy discourses and their consequences on (teacher) professional identity (Sachs 2001). Central to our study is research on the construction of professional identity and professional growth (Kautto-Koivula 1993; Ruohotie 1996a; Ruohotie 1996b; Ruohotie 1999).

Professional identity provides a shared set of attributes and values, that enable differentiation of groups on rather an exclusive than an inclusive basis, and is rather conservative than radical in intent (Sachs 2001). Moreover, group differentiation may as well be guided by a progressive intent. Essentially, identity "...represents the process by which the person seeks to integrate his (*sic*) various statuses and roles, as well

as his diverse experiences, into a coherent image of self." (Epstein 1978, 101. Quoted in Sachs 2001, 154.) Professionally, self is the synthesis and integration of three subordinate identities:

- self as a self-directed, active human being,
- self as a skilled professional, and
- self as a member of the working community.

Together these form what in the present article is referred to as **professional identity** (Ruohotie 1993; Ruohotie 1999; Kautto-Koivula 1993). These subordinate identities are the prerequisites for **professional growth, sense of professional competence, and organizational commitment** (figure 1). In addition, a lack of sense of coherence between the different selves and the work, followed by feelings of **professional frustration** seem to affect experiencing of the professional self. These are discussed in more detail below.

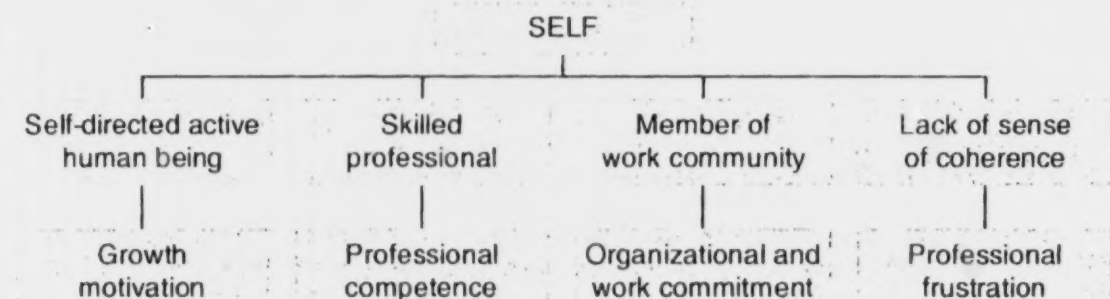


Figure 1: Professional Identity Model

(partly adapted from Ruohotie 1993, 1999)

2.1 Professional Growth

Self as a self-directed, active human being is a prerequisite for professional growth, that is, the broadening of expertise within a knowledge or an ability domain (Beairisto, 1996, 94). In addition to growth, Beairisto emphasizes the importance of maintaining professional knowledge and ability as an objective in training programs. Learning occurs not only as acquisition of new knowledge building on an existing knowledge base, but also within the boundaries of presumed knowledge, for example, we may realize that something we thought we had understood turns out to be a misconception (p. 94).

Professional growth motivation is triggered (or hindered) on different organizational, work role and personal levels. Organizations can trigger employees' growth motivation by creating a supportive learning culture and participative management, rewarding development, intensifying communication, providing security and by enhancing confidence of employees. The nature of the work itself, growth opportunities that relate to personal growth needs, and challenging situations are examples of work role triggers. Self-reliance, need to perform, awareness of ones strengths and weaknesses, and employer's support, events, different life stages and personal circumstances that affect career behavior function as personal triggers to growth. (Kautto-Koivula 1993; Tannenbaum 1997; Ruohotie 1999.)

Professional growth motivation has been found to be strongest among employees who have a higher level of education, and who are employed in demanding jobs. White-collar employees seem to have a stronger desire and inclination to seek further and continuing education and training than other groups of employees. Over

all, professional growth motivation increases throughout the career up to the age of 45, which appears to be a turning point at which it generally begins to decline. However, professional growth motivation is no linear curve, rather motion to and fro. Gender differences in vocational growth motivation do exist. These are related to field of trade. (Kautto-Koivula 1993; Puurula 1996; Ruohotie 1999.)

2.2 Professional Competence

Professional competence involves the ability to function effectively while performing tasks associated with a profession. Professional competence includes a discipline-specific knowledge base, technical skills, ability to solve problems encountered within the profession (profession specific proficiencies), and intellectual ability, personality traits, motivation, attitudes and values (general characteristics) (Willis & Dubin 1990). The degree of match between these and the requirements of the job influence **perception of self as a skilled professional**. Professionalism has been described as stages of development or the degree of expertise (Simon & Simon 1978, cf. Laufer & Glick 1996; Scribner 1983; Benner 1984).

With the complexity and the rapid creation of knowledge, technological innovation and global competition, updating skills is an essential element of professional competence (cf. Ruohotie 1999).

Work environmental features supporting the maintenance of professional competence are seen to be

- challenging work assignments
- suitable organizational culture and climate
- suitable organizational structure, management policies and practices
- communication and collaboration among peers, and with management, and
- supervisory behaviors

(Kautto-Koivula 1993).

Sometimes the objectives of increasing professional competence are closely intertwined with personal development. Such skills and competencies include promotion of flexibility, enhancing of creativity, development of interpersonal communication skills and conflict resolution skills, and development of participatory leadership style. In organizations where work is conducted in teams, the importance of these skills is even greater, as productivity does not depend on individual competence alone, but is influenced by all members of the team. At its best, the combined competencies of members of a team create synergy benefits. (Beairsto 1996.) Many organizations are more interested in the performance and productivity of their employees, and do not pay enough attention to the ways in which employees utilize their knowledge (Kautto-Koivula 1993). If there is deficiency in interpersonal and communication competence the functioning of the team is impaired despite the fact that the individual members may be highly competent with regards to technical and subject matter skills. In such a case, individual professional growth and competence will not necessary lead to desired performance or productivity levels. The focus must then be directed towards group dynamics. (Beairsto 1996.) As mentioned, the training program in connection to which data for this study was collected not only aimed at improving quality and productivity, but also to facilitate team building, among other things.

2.3 Organizational Commitment

Self as a member of the working community is the prerequisite for organizational commitment. Allen and Meyer (1990, cf. Meyer, Irving & Allen 1998) distinguish three forms of organizational commitment: **affective**, **continuance** and **normative** commitment.

Employees' emotional attachment to, identification with, and involvement in the organization are referred to as affective commitment. This is generally the strongest form of organizational commitment, and is motivated by the individual's desires.

Recognition of the cost or the "price" of leaving the organization is referred to as continuance commitment (Mayer and Schoorman 1998). Commitment is thus motivated by individual needs.

Normative commitment is the person's feeling of obligation to remain in the organization. Commitment is motivated by individual sense of duty.

Individuals whose values are reinforced by the organization possess stronger commitment than do individuals who do not have such strong personal affective investment. When an employee believes the organization makes an effort to increase personal and professional growth it may strengthen normative commitment. The employee anticipates something is expected from her in return for the growth opportunities. (Meyer & al. 1998.) In companies where short-term contracts are provided employees may identify less with the company, although they may identify strongly with their profession (Beairisto 1996). This may be particularly true for people with a high level of education and who are employed in knowledge-intensive work communities where the work teams are built around projects.

To what extent an individual attaches positive work experiences to the organization affects the strength of affective commitment (cf. attribution theory). Employees who consider the positive experiences to result mainly from personal aspirations are not likely to attribute the experiences to the organization, and consequently do not commit as strongly. Persons who do not value growth experiences do not seek such opportunities. However, if a company provides such experiences to employees, and especially when these are strongly associated with the organization, organizational commitment is generally strengthened in such individuals. (Meyer & al. 1998.)

Continuance commitment is affected by an employees' recognition of his or her status on the job market. Fear of not finding a new job if the current one is lost generally enhances commitment, especially during financially difficult times. Losing ones job is too costly for the person who values comfort and job security. (Meyer & al. 1998.) We may assume that organizational commitment of ageing employees, in particular, is based on continuity, as this group of employees is often thought to possess a lower "trade value" on the labor market (cf. Johansson 2001). A Finnish study on gravitation toward early retirement shows that the ageing experience employment opportunities to be scarce. The older the person, the more negative are the views of the labor market and of prospective employment opportunities. (cf. Gould, Takala & Lundqvist 1992).

This may be the general trend, however, training programs may have an impact on attitudes towards the employability of the ageing. In a study on ageing employees in SMEs Löfström and Pitkänen (1999) found that 59 of the 100 companies studied, had during the past twelve months employed ageing² employees. These companies had participated in training programs funded by the European Social Fund, and may have

² According to the definition by the Finnish Ministry of Labor, an ageing employee is a person 45 years of age or older. This definition is commonly used, however, it may not be particularly accurate. In interviews with 228 employees, Löfström and Pitkänen (1999) found that the respondents defined an ageing employee as some one in the work place who is 53 years or older.

placed a strong emphasis on competence issues from the beginning, or that may have been a result of the training.

In this study organizational commitment also includes commitment to work, or professional commitment.

2.4 Professional Frustration

Professional growth motivation, professional competence and organizational commitment provide predispositions to professional development. In addition, professional frustration, as a more ambivalent feature of professional identity has emerged in the development of the instrument used in the study.

According to Stronach et al, (2002, p. 109 - 110) "... 'professionalism' is bound up in the discursive dynamics of professionals attempting to address or redress the dilemmas (etc) on the job". Stronach et al see professional identity as a 'juggling' or reworking of individual professional commitments that have in some way been compromised (p. 119). Professional practice is very much conducted between the abstractions of ideals and the unrealized. They identify characteristics of displaced professionalism and frustrated identity claims due to fragmentation of work, a feature often encountered in postmodern working life, contributing to lack of sense of coherence.

Working relationships and role expectations are critical to understanding work-related stress. Conflicting role demands are both unexpected and stressful. Organizations can reduce job stress by structuring the conditions of work to meet workers' professional expectations, for example, through granting workers sufficient autonomy and discretion in their work, ensuring collegial and supportive working relationships, including relationships with supervisors, and promoting satisfying and rewarding experiences. (Lait & Wallace 2002.) Individuals who highly value professional growth and development of competence may be least prone to attribute professional growth to the organization. When experiencing professional frustration, these individuals are the first ones to seek new employment (Meyer et al, 1998).

Stronach et al (2002) emphasize the importance of theories of professionalism to take into account the ambivalence and contradiction in professional identities, rather than reducing these methodologically and rhetorically and engaging in excessive typologizing of 'the professional'.

3 Methodology

3.1 Objectives, Research Questions

The objective of the research was to investigate the development of professional identity during an extensive training program. The research questions are:

1. Are there differences in the perceptions of professional identity that is professional growth motivation, experiencing of professional competence, organizational commitment, and experiencing of professional frustration between
 - a) age groups
 - b) men and women

- c) managers and other employee groups (status of the respondent)
- d) staff with different educational background
- e) staff from different industries/lines of business?

2. What is the development of perceived professional identity measured over a period of time?

3.2 The Sample

6,325 managers and employees in 175 companies participated in the training program conducted in Finnish. Initially the plan was to include all companies in the research project; however, for various reasons discussed later (6.2.2) data could not be obtained either from all companies or from all employees. Altogether 4,286 responses were received from managers and employees in 122 companies. The participating SMEs employ between 10 and 250 people. The companies represent different fields of trade, such as the printing, electronics, plastics, food processing, furniture and fabrics industries, construction and development, and the service sector, including tourism and hospitality, cleaning and maintenance, trading, medical and health services, and engineering.

Of the responses 2,290 (54 %) were from females, 30 % from people less than 34 years of age, and 36 % from people over 45. In 28 % of the cases the respondent had only a school-leaving certificate or a matriculation exam but no professional or vocational qualifications. In 48 % of the cases the respondent had vocational qualification, and in 11 % a university degree. The majority, 3,024 (71 %), were blue-collar workers or white-collar employees. 403 (9 %) were in team leader or similar mid-level positions. 560 (13 %) were managers or directors.

Data were gathered at the beginning of the training program and a follow-up was completed at the end of the program. At the start of training 3,167 employees and managers responded, and, at the completion, 1,119. Extensive drop-out may lower the validity of the results.

3.3 Methods

Professional identity was measured using a 30-item self-report questionnaire (in Finnish) developed on the basis of the theoretical framework of professional growth by Ruohotie (Ruohotie 1993; Kautto-Koivula 1993; Puurula 1996). The questionnaire utilizes a 5-point Likert-type scale. Four factors of professional identity emerge: professional growth motivation (N of items = 10, $\alpha = 0.80$), professional competence (N of items = 7, $\alpha = 0.74$), organizational commitment (N of items = 9, $\alpha = 0.61$) and professional frustration (N of items = 4, $\alpha = 0.56$).

The following are freely translated sample questions from the Professional Identity Questionnaire.

Factor: Growth motivation:

- Self-development is important to me
- I like learning new ways of working

Factor: Organizational and work commitment

- I'd like to change field of industry if I had an opportunity
- I would like to work some place else

Factor: Competence

- I feel that I am well trained or educated for my profession
- I am proud of my competence

Factor: Professional frustration

- Training is not important, I just want to do my job
- The business idea of my work place is such a distant thing that it does not concern me

Data was collected in two stages in each participating company: the first set of data during the company's first days of training, while the follow-up data at the companies' completion of the training program. Also additional data about respondents' satisfaction and views about the training were collected. Data were collected by the trainers responsible for implementing the training program in each company.

Statistical analyses included exploratory factor analysis, analysis of variance (one-way ANOVA), and t-tests (independent samples). In the factor analyses, an orthogonal Varimax rotation was chosen to create maximum separation between groups. Varimax rotation provides independent measures of the constructs and generally produces a fairly unambiguous solution. Principal Axis Factoring was used as the extraction method. Factor scores (regression) were used in further group comparisons by means of analysis of variance.

Effect sizes (ES) were calculated (eta squared, η^2) to help address the question of practical significance. In interpreting partial eta squares for univariate tests the following guideline by Cohen (1977, and Stevens 1996) was utilized: small ES: $\eta^2 = .01$, moderate ES: $\eta^2 = .06$, and large ES: $\eta^2 = .14$. η^2 is generally a more accurate estimate of effect size, whereas partial η^2 , although largely used because of its applicability to all F and t tests, is generally an overestimate. Partial η^2 and η^2 differ very little when total sample is over 50.

4 Results

Several significant findings emerged in the study (table 1). There are significant differences between groups in all aspects of professional identity with regards to age, status, level of education, and field of trade. Significant differences in some aspects of professional identity were found with regards to gender. Group differences do not vary between the first and the second data set. Overall, there are significant differences in professional identity as a whole between the two sets of data.

Age

In the first as well as the second set of data, younger age groups have greater professional growth motivation but are less committed to their work and the organization than older age groups. They also possess a weaker sense of professional competence than older age groups, however, the younger age groups experience less professional frustration. The age groups 45 and older are significantly more frustrated than the younger age groups. Effect sizes vary from small to moderate.

Gender

Women experience less professional frustration and are more committed to their work and the organization than men. The effect sizes, however, are small.

Status

Both sets of data indicate that professional growth motivation and the sense of professional competence are weaker among workers than other groups of employees. They also experience more professional frustration and are less committed to their work and the organization than other groups of employees. Effect sizes are small.

Education

In both sets of data the weaker the educational level the weaker the professional growth motivation, and the experience of competence, but the stronger the experiencing of professional frustration. Individuals with only basic education experience professional frustration the most. Individuals with either only basic education or with a university degree are most committed to the organization. Effect sizes vary from small to moderate.

Industry/Line of business

Professional competence was considered significantly higher in the plastic industry than in the service or trade sectors, in which professional growth motivation, as well as commitment, was strongest. Staff from the food and electronics industries had the lowest growth motivation. Commitment was lowest in the plastic and electronics industry. Frustration was strongest in the food industry, and lowest in other fields of industry (other than plastic, electronic, and food processing industry). Effect sizes are small.

Development of professional identity

Expected changes occurred in all dimensions of professional identity during the course of the training program. Professional frustration decreased significantly³. Perceived professional competence increased significantly⁴. Effect sizes, however, are small. Organizational and work commitment slightly increased, whereas professional growth motivation slightly decreased, but these differences were not statistically significant.

Some selection of respondents has occurred between the two rounds of data selection. There are significantly more women ($F=69.7$, $df=1939.7$, $p=.000$), and the level of education is significantly higher ($F=2.2$, $df=4203$, $p=.000$) in the second round. Selection of companies has also occurred. In the first round, as much as 20.5 per cent ($N=649$) of the companies represent the field of metal and electronics industry, but in the second set of data only 5.4 per cent ($N=60$) of the companies represent this field.

³ $t=-3.7$, $df=4284$, $p=.000$, $\eta^2=.003$.

⁴ $t=3.7$, $df=2041$, $p=.000$, $\eta^2=.003$.

Table 1. Analysis of Variance. Self-reported views of Professional Identity at the start and at the end of the training program, and selected background variables.

	<i>First set of data (N= 3167)</i>				<i>Second set of data (N=1119)</i>			
<i>Professional Growth Motivation</i>	F	df	p	η^2	F	df	p	η^2
age	16.0	4	.000	.020	8.2	4	.000	.029
gender	-	-	ns.	-	-	-	-	-
status/position in organization	23.4	3	.000	.022	4.5	3	.004	.012
education	33.4	5	.000	.051	13.6	5	.000	.058
industry/line of business	4.6	7	.000	.010	4.2	7	.000	.026
<i>Commitment to work</i>	F	df	p	η^2	F	df	p	η^2
age	42.1	4	.000	.051	28.1	4	.000	.092
gender	14.7	1	.000	.005	5.0	1	.026	.005
status/position in organization	45.8	3	.000	.042	20.2	3	.000	.052
education	11.0	5	.000	.017	5.6	5	.000	.025
industry/line of business	15.7	7	.000	.034	5.1	7	.000	.031
<i>Professional Competence</i>	F	df	p	η^2	F	df	p	η^2
age	24.0	4	.000	.030	19.2	4	.000	.065
gender	-	-	ns.	-	-	-	-	-
status/position in organization	21.2	3	.000	.020	8.6	3	.000	.023
education	31.3	5	.000	.048	13.2	5	.000	.057
industry/line of business	15.2	7	.000	.033	9.3	7	.000	.056
<i>Frustration</i>	F	df	p	η^2	F	df	p	η^2
age	54.0	4	.000	.064	3.9	4	.004	.014
gender	15.8	1	.000	.005	13.6	1	.000	.012
status/position in organization	12.3	3	.000	.012	4.1	3	.006	.011
education	49.6	5	.000	.074	12.0	5	.000	.052
industry/line of business	4.7	7	.000	.010	2.8	7	.006	.018

5 Discussion

The study set out to examine the relationship between extensive training programs and the development of professional identity. Significant relationships exist between personal background variables and professional identity, but also organizational factors appear to have a strong impact on how professional identity develops.

5.1.1 Professional Growth Motivation

Professional growth motivation is strongest among the younger age groups. Staff from service and trade sectors had highest growth motivation, whereas staff from the food and electronics industries had the lowest growth motivation. The mobile phone industry has had an impact on, and increased the attraction of this field among younger people. The electronics industry is a field in which staying competitive has meant

staying ahead of or, at least, keeping updated on the latest innovations. International competition is tough in mobile technology and related fields. Employees in the electronic industry may see the need for continuous learning as almost natural, or something that certainly is part of ones job. In the service and trade sectors training may have been neglected, as new technology and innovations have not pushed employees to train their employees.

The lower the level of education and the lower the status (position) in the organization the weaker the professional growth motivation. Workers generally had a lower level of education than employees (white-collar) and managers. People who are not used to education or training or have not attended training in a while may feel insecure about his or her abilities to pursue training. They may also associate professional growth with formal education and training, which again may create negative associations due to previous negative experiences dating as far back as compulsory school.

5.1.2 Experiencing of Professional Competence

Workers and younger age groups possess a weaker sense of professional competence than older age groups and other groups of employees. The weaker the educational level the weaker the perception of professional competence. Younger age groups lack in work experience compared to older age groups, which make the younger perhaps more insecure with regards to experiencing of one's competence particularly when encountering new situations at work of which they do not have any previous experiences.

Higher levels of education quite naturally strengthen one's knowledge base and thus increases the experiencing of professional competence compared to those with only a basic education. Professional competence was considered significantly higher in the plastic industry than in the service or trade sectors. The strong growth motivation in the service and trade sectors is likely to be a consequence of experiencing of low competence as a result of lack of training.

5.1.3 Organizational and Work Commitment

Younger age groups are less committed to their work and the organization. Younger people may experience that they have a strong "trade value" on the labor market is high. They feel that they are sought-after work force in companies, and even if they lost their job, they believe they can find a new one. In fact, people today do not take job security for granted, especially not younger people who gained their education and their first jobs during the depression in Finland in the 1990's. Despite the fact that economy has been restored and the worst levels of unemployment are in the past, many features from the depression have remained in working life. One such feature is that many employers avoid permanent contracts and instead offer only temporary employment. Another feature is the use of hired workforce, that is, the hiring of employees from personnel rental companies on a short-term basis. The receiving organizations do not invest in the temporary "come and go" work force. These employees are not particularly committed to the employer and they are rarely even expected to commit themselves to the organization.

Individuals with only basic education are most committed to their work and the organization. This may again be due to the experience of low "trade value" at the labor market. A low level of education restricts the variety of jobs one can chose between. Today, in Finland, the qualification demands are high even for quite basic jobs, and people with only compulsory education and a school-leaving certificate (after completion of

the 9-year compulsory education) simply have difficulties finding employment. In Finland, formal vocational qualifications are provided by vocational institutions through 75 initial vocational study programs with specialization options. As the education system is quite extensive employers generally require at least basic vocational qualification. In general, a school-leaving certificate or a matriculation exam (9+3 years, necessary in order to gain access to higher education) is not sufficient to guarantee employment.

Staff in plastics and electronic industries were least committed to their work. In a growing industry people realize that there are plenty of job opportunities available, and one is not necessarily dependent on the present employer. In fact, in some industries, changing employers with a few years' intervals has been regarded as a desirable trait of new hires. In the service and trade sectors, where experiencing of competence was lowest, commitment was strongest. These employees do not experience that they can afford losing their job, as their felt competence is low and, thus, opportunities to get hired are felt to be lower than among those with a strong sense of professional competence.

Women are more committed to their work than men. Many women, particularly younger ones, may feel that their position on the labor market is insecure due to possible future maternity leaves. Employers are obliged by law to pay a certain percentage of the salary during maternity leave, which is at least 14 weeks. This system is created for the benefit of women during maternity leave. However, it may also decrease the willingness of employers to hire young women. This of course is an extremely difficult matter to investigate.

Slightly surprisingly workers are less committed to their work as well as to the organization than white-collar employees and managers. This perhaps is a question where differentiation between organizational and job commitment is needed. Could the workers be committed to their employer, but not that strongly to the job they are performing? The fact is that blue-collar workers often perform quite monotonous assembly line jobs. Instead of the task itself other aspects of work may become more important, such as social relationships. Perhaps work may not play such an important role in life at all. Employment is rather seen as a necessity and the employer as someone who regularly pays one's salary.

5.1.4 Experiencing of Professional Frustration

Younger age groups and women experience less professional frustration. Young people may feel that they have more opportunities and options ahead that the older ones do not have, or do not identify. The women may have been able to better accomplish a sense of meaningfulness in their jobs. Perhaps in some cases lack of meaningfulness is compensated by the superior social relationships at work or satisfying family and private life. Since men were generally employed in higher positions, the demands placed on them may be higher. If demands are unrealistic for an individual, or do not allow an individual to live up to his or her full potential, it may result in professional frustration. Likewise, if one has strived for a high position in the organization, but is stuck on a lower managerial level without prospects of advancement, the unrealized goal may create professional frustration. To the extent that some behaviors investigated are culturally driven or culturally unique, such as level of trust in an organization, gender issues, or importance placed on training, further cross-cultural studies are welcome. OECD indicators show that there are considerable differences in labor-force activity and positions of men and women, and between educational attainment levels. In Finland, differences in labor-force participation of men and women by age group and educational attainment level are relatively small (Education at a Glance 1998).

Workers experience more professional frustration than other groups of employees. In the food processing industry, where professional growth motivation was weak, professional frustration was strong, indicating general dissatisfaction among employees with the current situation without the employees seeing much

opportunity for change either. The weaker the educational level the stronger the experiencing of professional frustration. Individuals with only basic education experience professional frustration the most. The juggling of individual professional commitments has in some way been compromised. Perhaps these individuals believe they possess the potential to perform more varied and demanding tasks, but because of lack of proper education they are stuck in an unsatisfactory situation with undemanding or unfulfilling jobs. Among these people there may be unexpected growth potential, as disorder is prerequisite for transformative learning (cf. Mezirow 1990)

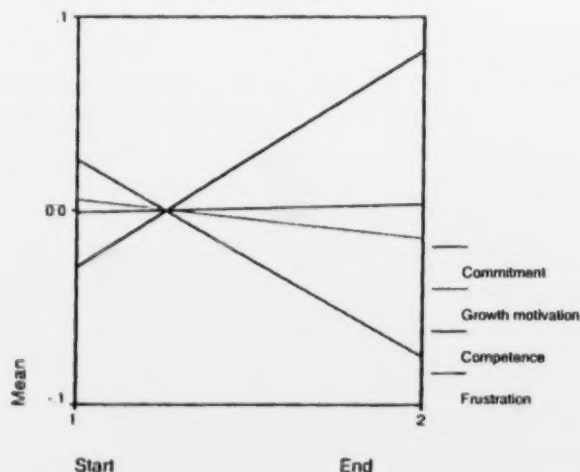
5.1.5 Development of Professional Identity

Previous research indicates that professional identity is not a fixed characteristic. Rather, depending on time and context an individual moves between identities (Sachs 2001). Professional identity appears to exist on the continuum weak-strong, and includes a subjective and an objective dimension. Furthermore, it develops in a social and historical context through growth, maturity and socialization. (Ohlen & Segesten 1998.) The findings in this study support the hypothesis that an individual moves along a professional identity continuum depending on different contextual factors and personal characteristics.

Changes occurred in all dimensions of professional identity during the course of the training program (chart 1):

- Perceived professional competence increased significantly⁵
- Professional frustration decreased significantly⁶
- Commitment to work slightly increased
- Professional growth motivation slightly decreased

Chart 1: Changes in professional identity



⁵ $t = -3.7$, $df = 4284$, $p = .000$, $\eta^2 = .003$

⁶ $t = 3.7$, $df = 2041$, $p = .000$, $\eta^2 = .003$

It was expected that overall professional competence would increase during such an extensive training program. With a better sense of professional competence it was expected that professional frustration would decrease. At the same time, growth motivation was also expected to decrease as a result of the training. It was anticipated that people would feel that they had updated their knowledge and skills base and would not need training in at least a while. The training lasted approximately one year for each participating company. During this time it is likely that some people would also get tired of the process.

Commitment to work and the organization increased only slightly. It is likely that the companies failed to provide employees a sense that the organization is providing the training opportunity as an investment in each individual. The training has not created in the employees a sense of duty or gratitude towards the employer. Rather, it appears employees attribute the increased professional competence to their own achievement. With an increased sense of professional competence people are likely to perceive an increase of their position on the labor market. Having completed extensive training, they are likely to believe they are more attractive as prospective employees also in other companies. Perhaps the fact that the trainers worked for an external training provider may have contributed to the employees not attributing the training, or the commitment, to the employer. With internal trainers the association between training program and employer may have been stronger. Internal trainers, however, is an impossibility for most SMEs. Moreover, the fact that many of the companies were in the state of organizational restructuring may have contributed to the employers experiencing the training as part of the restructuring process, which it in many cases also was. Thus the training may not have been perceived as an investment in the individual employee's professional development.

A more fundamental reason for why many companies have failed to increase employees' organizational commitment is strongly related to organizational strategy. It is possible that in these organizations human resources management and business strategy have not been very closely connected to each other. Research (Kautto-Koivula 1993) indicates that the appreciation and utilization of long-term training is connected to the role of human resources activities in an organization's strategy. The key here is how closely human resources management is connected to business strategy. In organizations where individual career development is seen as part of an organization's human resources development at large, where human resources is an integral part of strategic planning, or where human resources and line activities are integrated, long-term training offers a tool for the implementation of human resources development. It is also essential that organizations are able to utilize the increased potential of their employees, and offer new challenging tasks accordingly. If the potential is not utilized, the individual employee may apply for more challenging tasks in another organization. In organizations such as the ones described above long-term training is, as noted, a valuable tool, but obviously a risky one in organizations, which have not yet linked human resources management and business strategy closely together.

6 Validity and Reliability of the Study

6.2.1 Validity and Reliability of Measure

The Professional Identity Questionnaire has demonstrated satisfactory psychometric properties. The content validity of the scales was good, and reliabilities of sum scales based on the factors ranged from .56 to .80.

Any accuracy problems of the study are likely rather related to the sample than the measure itself. Some selection has occurred between the first round of questionnaires and the follow-up. In the follow-up

respondents are significantly younger and have a higher level of education than the respondents in the first round. There were also slightly more respondents in leadership and managerial positions in the follow-up compared to the initial round, however, the difference is not statistically significant. The selection may have contributed to the significant increase in experiencing of professional competence and the overall decrease in experiencing of professional frustration. As noted, younger age groups and respondents with a higher level of education experience less frustration and are less committed to work and organization.

6.2.2 Non-response and Attrition

As mentioned earlier, those responsible for training were requested to administer the questionnaire in all companies twice, at the beginning and at the end of the training. Despite strong emphasis on the need to collect systematic data some of the trainers did not see the relevance of the research, and left the questionnaires unused. Apparently some trainers also felt that the time allocated for training was too short for administering the questionnaire.

Some trainers were more eager to collect data at the beginning of the training. At the end of the training dropout of companies had occurred because the second round of data collection had not taken place. It is possible that some trainers had forgotten their responsibility to collect data. Also the fact that the trainers were responsible for hundreds of training sessions resulted in quite a heavy workload for some, and in such situations, anything beyond the training itself may by some have been regarded as extra work that could be left out. Despite emphasis on the importance of the study, some trainers may have believed that participating in the data collection was voluntary. Furthermore, some trainers shifted workplace, and the data collection was not delegated to the replacing person. Thus, part of the attrition is, in fact, due to the trainers responsible for administering the questionnaire, not the participants in the training program.

It can be assumed that in the companies where the questionnaire was administered properly, not all employees have responded. People who are neither accustomed readers nor familiar with research and its methods may not see the relevance of filling out a questionnaire even though they were encouraged to do so. Also the trainers' attitudes towards the research project are likely to have influenced the response rate in companies where it was administered. If a trainer conveyed a dismissive view of the research project, prospective respondents may have been dissuaded to fill out the questionnaires. The trainers were advised to collect the questionnaires during the training session during which these were administered. Due to lack of time, some trainers allowed the respondents to return their questionnaire later. This may also have contributed to respondents not returning their questionnaires.

Some of the respondents in the first data collection round may have dropped out from the training program, and some of the respondents in the second round may not have joined the training until towards the very end of it. Thus, all respondents in the second data collection are not included among those in the first round. At which point and for what reason dropout from the training program may have occurred, is not known to the researchers. It is possible that some respondents may have been retired during the time the training lasted, or may have been employed by another employer. It was not possible to monitor employees leaving the work place, retiring, or taking leaves-of-absence or maternity/paternity leaves during the company's participation in the training program. Furthermore, it is likely that there are respondents who may have left the training uncompleted because of personal and family reasons. New employees, again, may have been hired any time during the training program and may have joined the program at any stage. Unfortunately, the researchers do not have data on who the training program dropouts and the non-respondents are.

In the present study, non-response and attrition may have been reduced if the trainers at the training institution responsible for data collection had been more familiar with the basic premises of empirical research.

7 Importance of Study and Suggestions for Further Research

In a time where employees' life long learning is vital, one cannot assume that once learned skills are sufficient throughout the career. Companies need to ascertain that their employees have the skills and knowledge needed to not only carry out their work but also to be able to constantly learn. In order to stay competitive, companies cannot afford to neglect development of human resources. This study contributes essential information on the impact of an extensive training program on the development of professional identity among employees in different positions and lines of business, of different ages, and with different educational attainment levels.

In a 3-year longitudinal survey on the effects of professional development on teachers' instruction Desimone and al. (2002) found that professional development is more effective when it encompassed teachers in collective participation from the same school or department, when active learning opportunities were provided, and when linked to and building on the participant's previous knowledge. A similar conclusion can be drawn in the present study. The overall results indicate that professional competence increased significantly, and experiences of professional frustration slightly decreased during the training. The training involved the entire personnel of each participating company, which may have been a factor of positive contribution. Also, the training included active learning tasks, such as IT and hands-on training at participants' workplaces. Each employee's training needs were mapped out and the training program was matched to meet these needs. Thus, participant's previous knowledge was taken into consideration in the tailoring of the program.

In a training program, movement on the professional identity continuum may be influenced by the orientation into the training and by the employees' expectations with regards to the training. A look at these may have contributed knowledge about the relationship between the development of professional identity and intended as well as unintended results of the training.

To be successful in strengthening professional identity, companies should provide their employees growth opportunities and experiences that support the employees' set of values. Simultaneously, to increase organizational commitment, employees need to make the employees aware of the extent to which the organization has provided growth opportunities. In the study, organizational commitment barely increased, whereas professional competence increased significantly. A strengthened sense of professional competence will provide the employee with greater labor market opportunities and greater belief in these opportunities. One is not particularly tied to any specific employer. Therefore, by making the growth opportunities explicit, organizations may maintain or increase employees' commitment. The role of different types of organizational commitment, that is normative, affective and continuance commitment, in relation to professional growth motivation, experiencing of professional competence and feelings of professional frustration are certainly an interesting topic for further exploration. The role of the connectedness of human resources management to business strategy obviously is an interesting aspect in further studies focusing on different forms of organizational commitment. Perhaps in-depth studies in organizations with different degrees of connectedness between these would yield interesting cases.

In this study both organizational and professional commitment were incorporated in the concept of organizational commitment. Puurula has addressed this issue in further development of the professional identity measure. Items distinguishing organizational and professional commitment have been developed and tested. However, no clear distinction between these two concepts has emerged. It seems as if organizational and professional commitment are somehow entwined. These might emerge more clearly in knowledge-intensive work communities where the employees have a high level of education and are considered experts in their field. Research into this type of organization might provide additional light on the nature of organizational and professional commitment (cf. Alvesson 2000).

Investigation is also required with regards to the development of professional identity among employees who have not participated in any professional training programs. Does lack of frequent training affect professional identity? Likewise, the role of attitudes towards learning in the development of professional identity outside training schemes needs to be investigated. In everyday working life, do positive attitudes towards learning have a positive impact on professional identity? Do negative attitudes and previous negative learning experiences have a detrimental effect on the development of professional identity? These are questions yet unanswered, but which the investigation of may provide us with more understanding of the organization's role in the development of the employee's professional knowledge. Such investigation would also increase our understanding of the similarities and differences in the development of professional identity in training programs and outside these. In the present study, the companies that provided their employees with the opportunity to participate in large-scale programs are extraordinary. A large number of SMEs do not provide such opportunities. Therefore, it is of utmost importance also to investigate the development of professional identity, and contributing and inhibiting factors in those organizations where training is not encouraged, or where training programs have not been carried through. Related to this discussion are also the power issues and questions on whose values are being served by the training, or the non-training, or even by poor training.

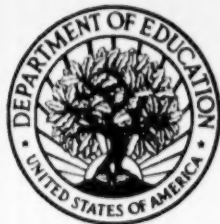
Last but not least, further research needs to address the issue of professional identity in insecure jobs. Employees are frequently offered only temporary employment with short-term contracts, which may or may not be renewed, and the individual may drift between numerous temporary jobs in different fields. Is it possible that these employees develop multiple, distinct but perhaps weak professional identities? Research on how professional identity develops or does not develop in such circumstances would provide important knowledge of the working life in postmodern society, and undoubtedly requires in-depth study of personal life-histories.

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